

Homework 85 - FORM A

Find Arc Length

Name: _____

Period: _____ Date: _____

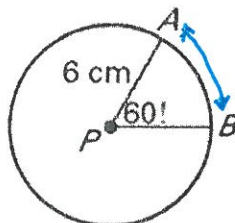
Failure to show all work and write in complete sentences will result in LaSalle!

1) The circumference of a circle is 30 inches. What is the radius? $30 = \pi 2r$

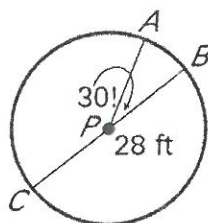
2) The diameter of a circle is 10 cm. What is the circumference? $C = 10\pi$

3) The radius of a circle is 6 inches. What is the circumference? $C = 2\pi 6$

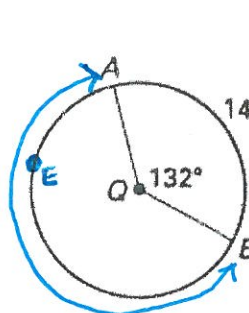
4) Find the length of arc AB. $C = 2\pi 6$



5) Find the length of arc AB. $C = d\pi$
 $C = 28\pi$



6) Find the measurement and length of the major arc.



$$\widehat{AEB} = 360 - 132 = \underline{\hspace{2cm}}$$

$$\frac{132}{360} = \underline{\hspace{2cm}}$$

7) A watermelon is cut into a series of round pieces. One piece measures 6 inches in diameter. When this round piece is cut into slices at equal angles through the center of the circle, there are 9 slices. What is the approximate length of the rind on the outer edge of one slice?

$$C = \pi 6$$

$$C = \frac{\boxed{\hspace{2cm}}}{9} = \underline{\hspace{2cm}}$$

8) The minute hand and the hour hands on a clock originate at the center of the clock and reach to the outer edge of the clock. The diameter of the clock is 12 inches. When it is 3:00 pm, what is the length of the arc created by the minute hand and the hour hand?

$$C = \pi 12$$

$$C = \frac{\boxed{\hspace{2cm}}}{4} = \underline{\hspace{2cm}}$$

9) A pizza is sitting in a circular box that fits its edges exactly. The pizza has a diameter that is 12 inches across. The pizza has 8 equal slices cut at equal angles through the center of the pizza. When you take one piece of pizza from the circular pizza box, what is the approximate length of the exposed side of the box?

$$C = \pi 12$$

$$C = \frac{\boxed{\hspace{2cm}}}{8} = \underline{\hspace{2cm}}$$

10) The minute hand and the hour hands on a clock originate at the center of the clock and reach to the outer edge of the clock. When it is 2:00 pm, what is the length of the arc created by the minute hand and the hour hand?

